# **RAW SEQUENCE LISTING**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:

Source:

Date Processed by STIC:

ENTERED



PCT

RAW SEQUENCE LISTING DATE: 02/26/2005
PATENT APPLICATION: US/10/524,970 TIME: 08:09:35

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\02262005\J524970.raw

```
3 <110> APPLICANT: SUMITOMO CORPORATION
             Irimura, Tatsuro
      6 <120> TITLE OF INVENTION: Use of Lectin Library for glycoprotein and cell
identification, serum and
             cell diagnosis, and glycoprotein and cell fractionization
      9 <130> FILE REFERENCE: SAP-702-PCT
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/524,970
C--> 11 <141> CURRENT FILING DATE: 2005-02-18
     11 <150> PRIOR APPLICATION NUMBER: JP2002-239979
    12 <151> PRIOR FILING DATE: 2002-08-20
    14 <160> NUMBER OF SEQ ID NOS: 31
    16 <170> SOFTWARE: PatentIn version 3.1
    18 <210> SEQ ID NO: 1
    19 <211> LENGTH: 950
    20 <212> TYPE: DNA
    21 <213> ORGANISM: Maackia amurensis
     23 <220> FEATURE:
    24 <221> NAME/KEY: CDS
    25 <222> LOCATION: (4)..(858)
    26 <223> OTHER INFORMATION:
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                                                                               48
    29 gcc atg gct act tcc aac tca aaa cca act caa gtc ctt ctt gcc acc
            Met Ala Thr Ser Asn Ser Lys Pro Thr Gln Val Leu Leu Ala Thr
    30
    33 ttc tta act ttc ttc ctt ttg cta ctc aac aac gta aac tca tca gat
                                                                               96
    34 Phe Leu Thr Phe Phe Leu Leu Leu Asn Asn Val Asn Ser Ser Asp
                        20
                                            25
    37 gag ctt tct ttt acc atc aac aat ttc atg cca aat caa ggc gat cta
                                                                              144
    38 Glu Leu Ser Phe Thr Ile Asn Asn Phe Met Pro Asn Gln Gly Asp Leu
                                        40
                    35
                                                                              192
    41 ctc ttc caa qqt qta gcc act gtt tca cca aca ggg gta tta caa ctt
    42 Leu Phe Gln Gly Val Ala Thr Val Ser Pro Thr Gly Val Leu Gln Leu
                                    55
    45 acc agc gaa gaa aac ggt caa ccc ctg gag tat tct gtt ggc aga gct
                                                                              240
    46 Thr Ser Glu Glu Asn Gly Gln Pro Leu Glu Tyr Ser Val Gly Arg Ala
    47
     49 cta tat act gcc cct gtg cgc att tgg gac agt acc act ggc gcc gta
                                                                              288
    50 Leu Tyr Thr Ala Pro Val Arg Ile Trp Asp Ser Thr Thr Gly Ala Val
    53 gca age tte tee act tee tte ace ttt gtt gtg aaa gca get agg gga
                                                                              336
    54 Ala Ser Phe Ser Thr Ser Phe Thr Phe Val Val Lys Ala Ala Arg Gly
                        100
                                            105
    57 gct tct gac ggt tta gcc ttc ttt ctt gca cca cct gat tct cag atc
                                                                              384
    58 Ala Ser Asp Gly Leu Ala Phe Phe Leu Ala Pro Pro Asp Ser Gln Ile
```

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100																	
59				115					120					125			420
							aaa										432
	Pro	Ser	-	Ser	Val	Ser	Lys	_	Leu	GLY	Leu	Phe		Asn	ser	Asn	
63			130					135					140				400
		_	_				att	_	_	_							480
	Ser	_	Ser	Ser	Asn	Gln	Ile	Val	Ala	Val	Glu		Asp	Thr	Tyr	Phe	
67		145					150					155					
							tgg										528
	_	His	Ser	Tyr	Asp		Trp	Asp	Pro	Asn		Arg	His	He	Gly		
	160					165					170					175	
							tcg										576
	Asp	Val	Asn	Gly		Glu	Ser	Ile	Lys		Val	Gln	Trp	Asp		Ile	
75					180					185					190		
							gct										624
78	Asn	Gly	Gly	Val	Ala	Phe	Ala	Thr	Ile	Thr	Tyr	Leu	Ala	Pro	Asn	Lys	
79				195					200					205			
							gtt										672
82	Thr	Leu	Ile	Ala	Ser	Leu	Val	Tyr	Pro	Ser	Asn	Gln	Thr	Ser	Phe	Ile	
83			210					215					220				
							ttg										720
86	Val	Ala	Ala	Ser	Val	Asp	Leu	Lys	Gly	Ile	Leu	Pro	Glu	Trp	Val	Arg	·
87		225					230					235					
							acg										768
90	Val	Gly	Phe	Ser	Ala	Ala	Thr	Gly	Ala	Pro	Lys	Ala	Val	Glu	Thr		
91	240					245					250					255	
							ttc										816
94	Asp	Val	Arg	Ser	$\mathtt{Trp}$	Ser	Phe	Thr	Ser	Thr	Leu	Glu	Ala	Asn	Ser	Pro	
95					260					265					270		
							gtg										858
98	Ala	Asp	Val	Asp	Asn	Asn	Val	His	Ile	Ala	Arg	Tyr	Thr	Ala			
99				275					280					285			
											gtaa	a at	taaa	taaa	aat	gacctga	918
						cag o	ctata	acaaa	aa at	-							950
				ID N													
				TH: 2													
				: PR'													
						ackia	a amı	irens	sis								
			~	ENCE													
		: Ala	a Thi	r Se	r Ası	ı Sei	c Lys	Pro	Thi		n Val	l Le	u Lei	Ala	a Th:	r Phe	
114					5					10					15		
117	Lei	ı Thi	r Phe	e Phe	e Lei	ı Leı	ı Leı	ı Leı	ı Ası	ı Ası	ı Val	l Ası	n Se		r Asj	p Glu	
118				20					25					30			
121	. Leı	ı Sei	r Phe	e Thi	r Ile	Ası	n Asr	ı Phe	e Met	Pro	o Ası	ı Gl	n Gl	y Asj	p Lei	u Leu	
122			35					40					45				
125	Phe	e Gli	n Gly	y Va	l Ala	a Thi	· Val	L Se	r Pro	Th:	r Gly	y Vai	l Le	ı Glı	n Lei	u Thr	
126		50					55					60					
129	Sei	: Gl	ı Glı	ı Ası	n Gly	/ Glr	n Pro	Let	ı Glı	тул	r Sei	r Vai	l Gl	y Ar	g Ala	a Leu	
130	65					70					75					80	
133	Туз	Th	r Ala	a Pro	o Val	l Arg	g Ile	e Trp	Asp	Sei	r Thi	r Th	r Gl	y Ala	a Va	l Ala	

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134		85							90 95						-		
137	Ser Ph	e Ser	Thr	Ser	Phe	Thr	Phe	Val	Val	Lys	Ala	Ala	Arg	Gly	Ala		
138			100					105					110				
141	Ser As	p Gly	Leu	Ala	Phe	Phe	Leu	Ala	Pro	Pro	Asp	Ser	Gln	Ile	Pro		
142		115					120					125					
145	Ser Gl	y Ser	Val	Ser	Lys	Tyr	Leu	Gly	Leu	Phe	Asn	Asn	Ser	Asn	Ser		
146	13	0				135					140						
149	Asp Se	r Ser	Asn	Gln	Ile	Val	Ala	Val.	Glu	Phe	Asp	Thr	Tyr	Phe	Gly		
150	145				150					155					160		
153	His Se	r Tyr	Asp	Pro	Trp	Asp	Pro	Asn	Tyr	Arg	His	Ile	Gly	Ile	Asp		
154				165					170					175			
157	Val As	n Gly	Ile	Glu	Ser	Ile	Lys	Thr	Val	Gln	Trp	Asp	Trp	Ile	Asn		
158			180					185					190				
161	Gly Gl	y Val	Ala	Phe	Ala	Thr	Ile	Thr	Tyr	Leu	Ala	Pro	Asn	Lys	Thr		
162		195					200					205					
165	Leu Il	e Ala	Ser	Leu	Val	Tyr	Pro	Ser	Asn	Gln	Thr	Ser	Phe	Ile	Val		
166	21	0				215					220	•					
169	Ala Al	a Ser	Val	Asp	Leu	Lys	Gly	Ile	Leu	Pro	Glu	Trp	Val	Arg	Val		
	225				230					235					240		
173	Gly Ph	e Ser	Ala	Ala	Thr	Gly	Ala	Pro	Lys	Ala	Val	Glu	Thr	His	Asp		
174				245					250					255			
177	Val Ar	g Ser	Trp	Ser	Phe	Thr	Ser	Thr	Leu	Glu	Ala	Asn	Ser	Pro	Ala		
178			260					265					270				
181	Asp Va	l Asp	Asn	Asn	Val	His	Ile	Ala	Arg	Tyr	Thr						
182		275					280					285					
	<210> SEQ ID NO: 3																
	<211> LENGTH: 32																
	<212> TYPE: DNA																
	<213>			Art	ific	ial								•			
	<220>					_	_				_						
	<223>				LION	: Tag	g Pr	ımer	pru	AG-S]	pe I	-sen	se				
	<400>																22
	ccgggt		_	_	ag a	cagai	cgag	e te									32
	<210>																
	<211>																
	<212>				: = :	: - 1											
	<213>			Art.	IIIC.	rar											
	<220>			י ע זייע כו	PT (NI	. Ta	~ D~	: mar	∽ET ?	AC C1	00 T	ant	:				
	<223> <400>				LION	: Ia	y PI.	rmer	prш	MG-5]	be 1	-anc.	ı				
	gagete	~			~+ ~	7244	- 200										32
	<210>				gc 90	-agg	Lacci	- 99									72
	<211>																
				U													
	<212> TYPE: DNA <213> ORGANISM: Artificial																
	<pre>&lt;220&gt; FEATURE: &lt;223&gt; OTHER INFORMATION: pFLAG-XhoI</pre>																
	<400>																
	ccaggt				at ca	agato	<b>.</b>										26
210	-cagge	Juuu	9-	-cgu	- C	~5~~;	9										

RAW SEQUENCE LISTING DATE: 02/26/2005
PATENT APPLICATION: US/10/524,970 TIME: 08:09:35

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\02262005\J524970.raw

```
221 <210> SEQ ID NO: 6
     222 <211> LENGTH: 28
     223 <212> TYPE: DNA
     224 <213> ORGANISM: Artificial
     226 <220> FEATURE:
     227 <223> OTHER INFORMATION: Primer MAH-Spe I-anti
     229 <400> SEQUENCE: 6
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     230 tgggcaacta gttgcagtgt aacgtgcg
     233 <210> SEQ ID NO: 7
     234 <211> LENGTH: 26
     235 <212> TYPE: DNA
     236 <213> ORGANISM: Artificial
     238 <220> FEATURE:
     239 <223> OTHER INFORMATION: Analyzing Primer N-26
     241 <400> SEQUENCE: 7
                                                                                 26
     242 catcataacg gttctggcaa atattc
     245 <210> SEQ ID NO: 8
     246 <211> LENGTH: 24
     247 <212> TYPE: DNA
     248 <213> ORGANISM: Artificial
     250 <220> FEATURE:
     251 <223> OTHER INFORMATION: Sequence Primer Loop D-Seq
     253 <400> SEQUENCE: 8
                                                                                 24
     254 gttaatagca tctctagttt accc
     257 <210> SEQ ID NO: 9
     258 <211> LENGTH: 59
     259 <212> TYPE: DNA
     260 <213> ORGANISM: Artificial
     262 <220> FEATURE:
     263 <223> OTHER INFORMATION: Inert Primer LLD3
     265 <220> FEATURE:
     266 <221> NAME/KEY: misc feature
     267 <222> LOCATION: (34)..(35)
     268 <223> OTHER INFORMATION: n is a or c or g or t or u.
     271 <220> FEATURE:
     272 <221> NAME/KEY: misc_feature
     273 <222> LOCATION: (33)..(33)
     274 <223> OTHER INFORMATION: m is a or c.
     277 <400> SEQUENCE: 9
W--> 278 ctacaagatc taacatcgtg ggtttcaact gcmnntttag gagcacccgt ggcagcaga
                                                                                 59
     281 <210> SEQ ID NO: 10
     282 <211> LENGTH: 59
     283 <212> TYPE: DNA
     284 <213> ORGANISM: Artificial
     286 <220> FEATURE:
     287 <223> OTHER INFORMATION: Insert Primer LLD4
     289 <220> FEATURE:
     290 <221> NAME/KEY: misc_feature
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291 <222> LOCATION: (37)..(38)

DATE: 02/26/2005

TIME: 08:09:35 PATENT APPLICATION: US/10/524,970 Input Set : A:\pto.da.txt Output Set: N:\CRF4\02262005\J524970.raw 292 <223> OTHER INFORMATION: n is a or c or g or t or u. 295 <220> FEATURE: 296 <221> NAME/KEY: misc\_feature 297 <222> LOCATION: (36)..(36) 298 <223> OTHER INFORMATION: m is a or c. 301 <400> SEQUENCE: 10 W--> 302 ctacaagatc taacatcgtg ggtttcaact gctttmnnag gagcacccgt ggcagcaga 305 <210> SEQ ID NO: 11 306 <211> LENGTH: 59 307 <212> TYPE: DNA 308 <213> ORGANISM: Artificial 310 <220> FEATURE: 311 <223> OTHER INFORMATION: Insert Primer LLD5 313 <220> FEATURE: 314 <221> NAME/KEY: misc\_feature 315 <222> LOCATION: (40)..(41) 316 <223> OTHER INFORMATION: n is a or c or g or t or u. 319 <220> FEATURE: 320 <221> NAME/KEY: misc\_feature 321 <222> LOCATION: (39)..(39) 322 <223> OTHER INFORMATION: m is a or c. 325 <400> SEQUENCE: 11 W--> 326 ctacaagatc taacatcgtg ggtttcaact gctttaggmn nagcacccgt ggcagcaga 59 329 <210> SEQ ID NO: 12 330 <211> LENGTH: 59 331 <212> TYPE: DNA 332 <213 > ORGANISM: Artificial 334 <220> FEATURE: 335 <223> OTHER INFORMATION: Insert Primer LLD6 337 <220> FEATURE: 338 <221> NAME/KEY: misc\_feature 339 <222> LOCATION: (43)..(44) 340 <223> OTHER INFORMATION: n is a or c or g or t or u. 343 <220> FEATURE: 344 <221> NAME/KEY: misc feature 345 <222> LOCATION: (42)..(42) 346 <223> OTHER INFORMATION: m is a or c. 349 <400> SEQUENCE: 12 W--> 350 ctacaagatc taacatcgtg ggtttcaact gctttaggag cmnnacccgt ggcagcaga 353 <210> SEQ ID NO: 13 354 <211> LENGTH: 59 355 <212> TYPE: DNA 356 <213> ORGANISM: Artificial 358 <220> FEATURE: 359 <223> OTHER INFORMATION: Insert Primer MAH loop D-1 Phe 361 <400> SEQUENCE: 13 59 362 ctacaaqatc taacatcqtq qqtttcaaaa actgctttag gagcacccgt ggcagcaga 365 <210> SEQ ID NO: 14 366 <211> LENGTH: 59

RAW SEQUENCE LISTING

RAW SEQUENCE LISTING ERROR SUMMARY

DATE: 02/26/2005

PATENT APPLICATION: US/10/524,970

TIME: 08:09:36

Input Set : A:\pto.da.txt

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#### Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:9; N Pos. 34,35

Seq#:10; N Pos. 37,38

Seq#:11; N Pos. 40,41

Seq#:12; N Pos. 43/44

### Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 6

## Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29 Seq#:30,31

#### VERIFICATION SUMMARY

DATE: 02/26/2005

PATENT APPLICATION: US/10/524,970

TIME: 08:09:36

Input Set : A:\pto.da.txt

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L:11 M:270 C: Current Application Number differs, Replaced Current Application No

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:28 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:1,Line#:26

L:278 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0

L:302 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0

L:326 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0

L:350 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0